The Role of COBie Data in MEP BIM Coordination Handover

Bridging the gap between construction delivery and operational excellence through structured asset intelligence.

CHAPTER 1

The Problem of the Paper Trail

Mountains of Disconnected Data

Traditional handovers deliver unlinked O&M manuals, disjointed PDFs, and scattered documents that are nearly impossible to navigate systematically.

The Hidden Cost

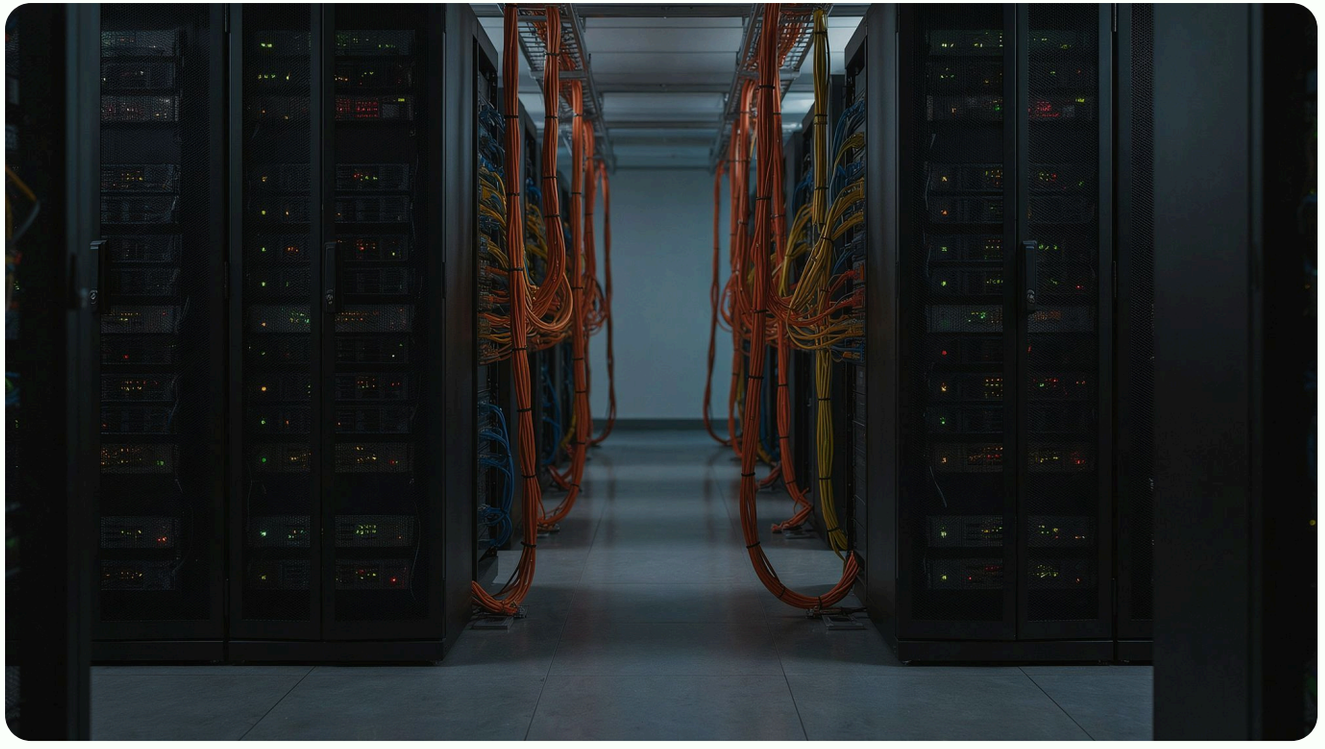
Facility managers spend weeks manually extracting asset data – a costly, error-prone process that delays operational readiness and inflates overhead.

A Lagging Indicator

Traditional handover confirms completion – not performance. It tells you the project is done, not whether the facility is ready to operate efficiently.

CHAPTER 1 – CONTINUED

The Digital Disconnect



Models That Stop at Closeout

BIM models are frequently abandoned at construction closeout, leaving valuable geometric intelligence inaccessible to the teams who need it most: facility operators.

Geometry ≠ Intelligence

3D geometry alone cannot drive operational decisions. Without structured attribute data, a model is a visual artifact – not a functional asset register.

The Silo Effect

Design, construction, and maintenance data remain trapped in separate systems, creating costly duplication and dangerous information gaps.

CHAPTER 2

What is COBie?

Construction Operations Building Information Exchange – a non-proprietary international standard that structures asset data for operational use.

Open Standard

COBie is vendor-neutral and internationally recognized, ensuring long-term compatibility across platforms and project teams.

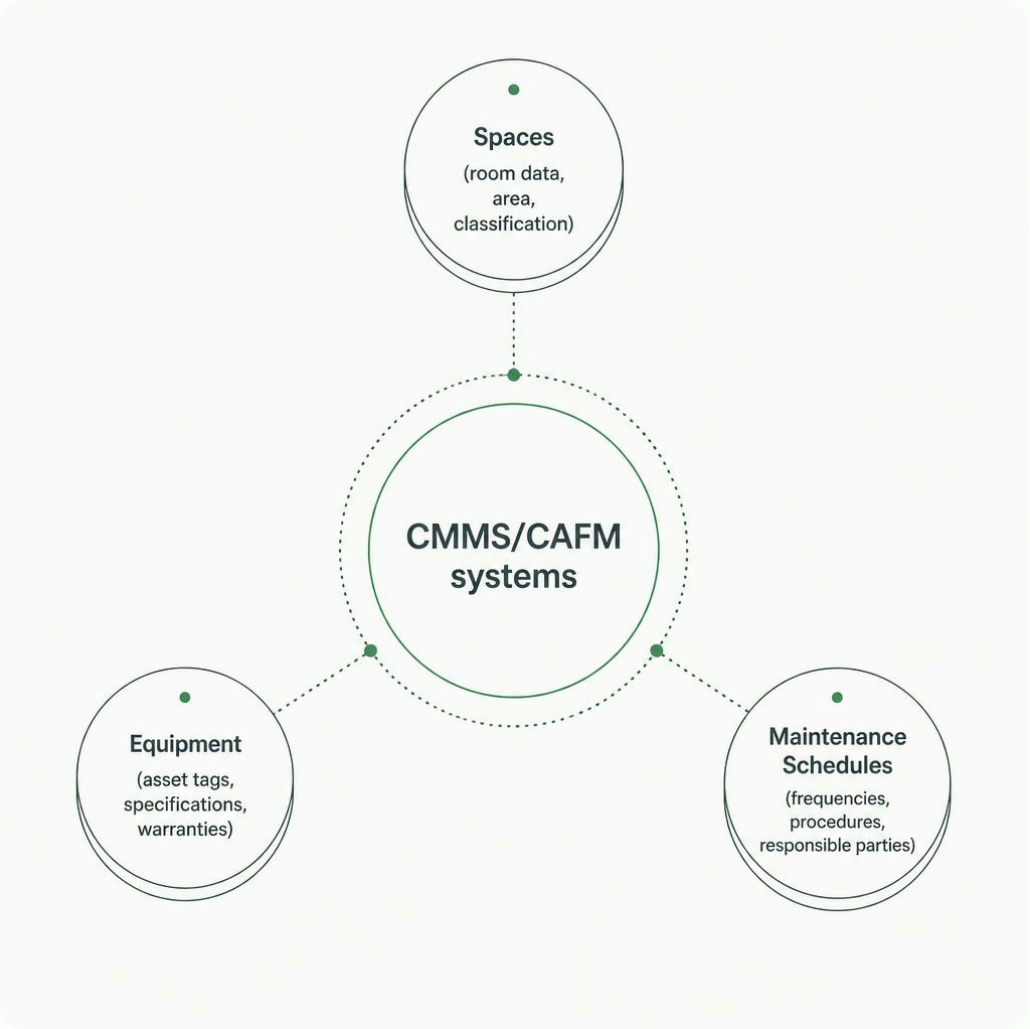
Structured Asset Data

Organizes spaces, equipment, systems, warranties, and maintenance schedules in a format both humans and machines can read.

The Digital Bridge

COBie connects 3D geometric BIM models to **CMMS** and CAFM platforms – translating construction data into operational intelligence.

Transforming Data into Operational Assets



From Completion to Operability

COBie shifts the fundamental question of project delivery from *"Is it complete?"* to *"Is it operable?"* – a critical distinction for facility owners.

Eliminating Manual Reentry

By structuring data at the source, COBie eliminates redundant manual data entry across datasets, dramatically reducing transcription errors and rework costs.

A Single Source of Truth

All stakeholders – designers, contractors, and operators – work from the same structured dataset, creating accountability and traceability throughout the asset lifecycle.

CHAPTER 3

MEP Coordination and COBie

MEP Drives Facility Performance

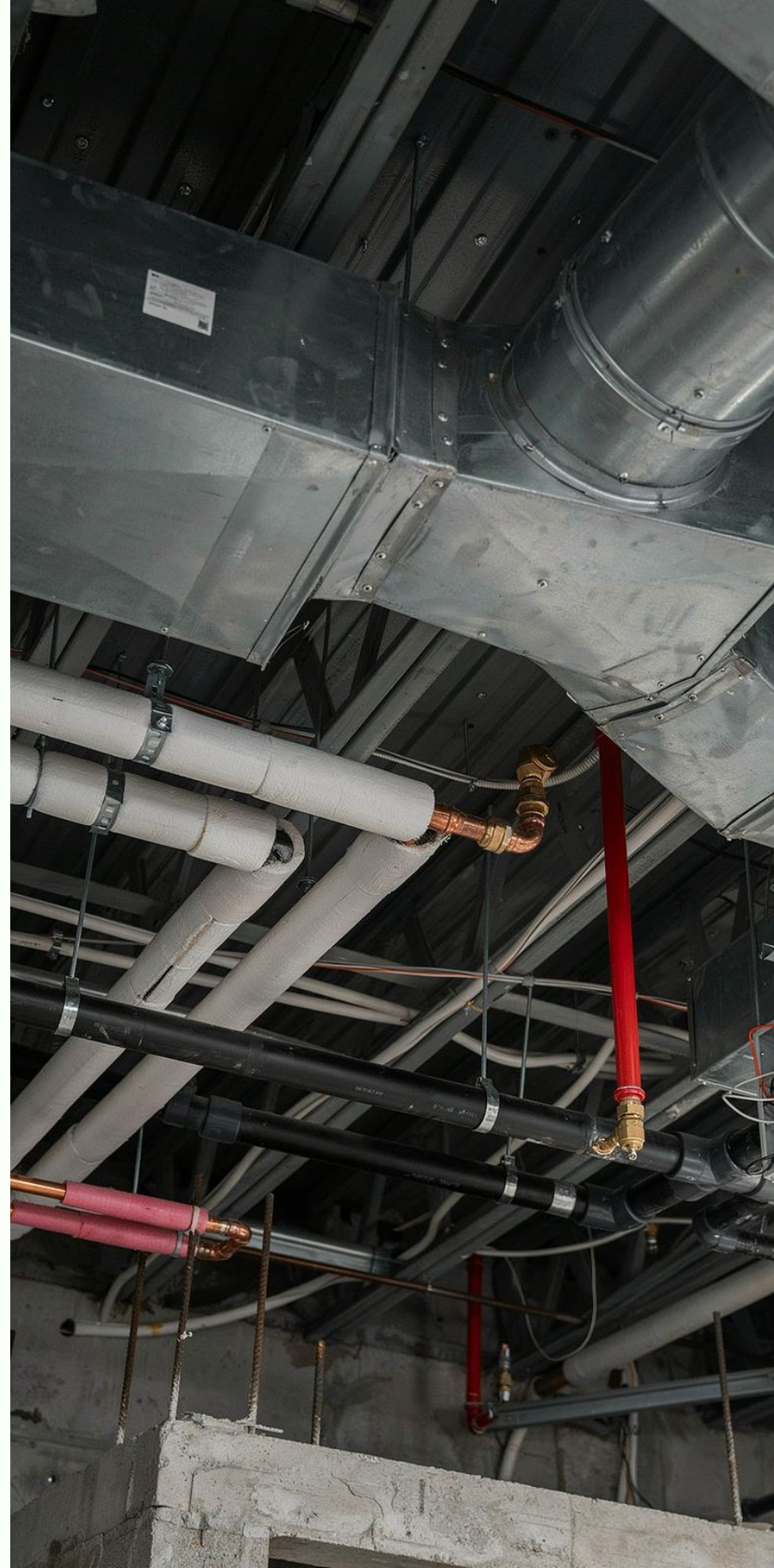
Mechanical, electrical, and plumbing systems account for the majority of a building's operational costs. **A**ccurate COBie data for these systems is essential, not optional.

COBie Parameters in Coordination

Integrating COBie parameters during the BIM coordination phase – not after – ensures data completeness is validated alongside clash detection.

Equipment Tagging & Asset Linking

Equipment tags, manufacturer data, and maintenance attributes are linked directly to clash-free models, creating an auditable, connected asset register from day one.



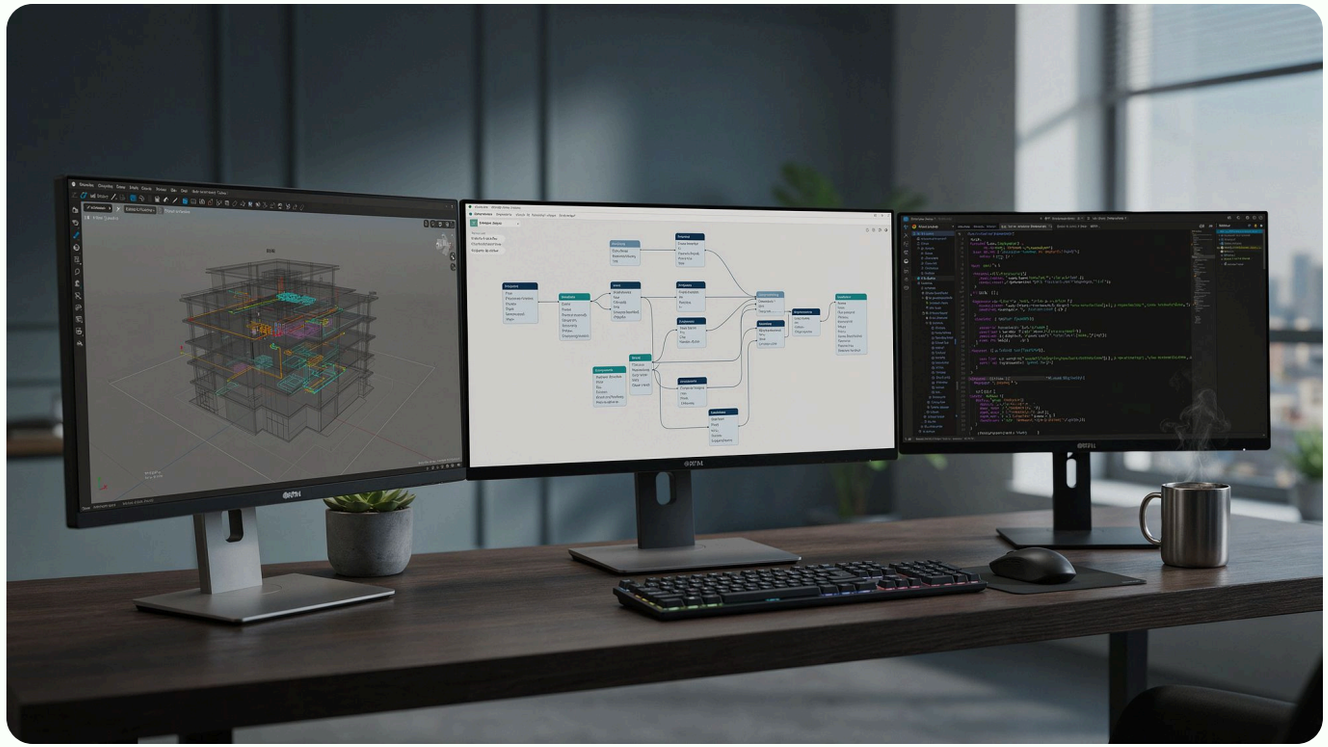
TEJJY METHODOLOGY

The Tejjy Workflow: Lifecycle-First Modeling

Define **Populate** **Deliver**

By embedding COBie requirements into the BIM Execution Plan from day one, Tejjy ensures data is captured progressively – eliminating the last-minute scramble that plagues conventional project closeouts.

Technical Precision in Practice



Federal Platform Integration

COBie parameters are mapped to federal asset management platforms including **TRIRIGA** and **BUILDER**, ensuring compliance with government facility management requirements.

Automation with Dynamo

Tejjy leverages **Dynamo** scripting to automate COBie parameter creation, population, and validation – reducing manual effort and eliminating inconsistencies at scale.

IFC Interoperability

All deliverables maintain **100% interoperability** with open IFC standards, ensuring long-term data portability regardless of the owner's future platform choices.

Real-World Impact

Fewer RFIs, Faster Delivery

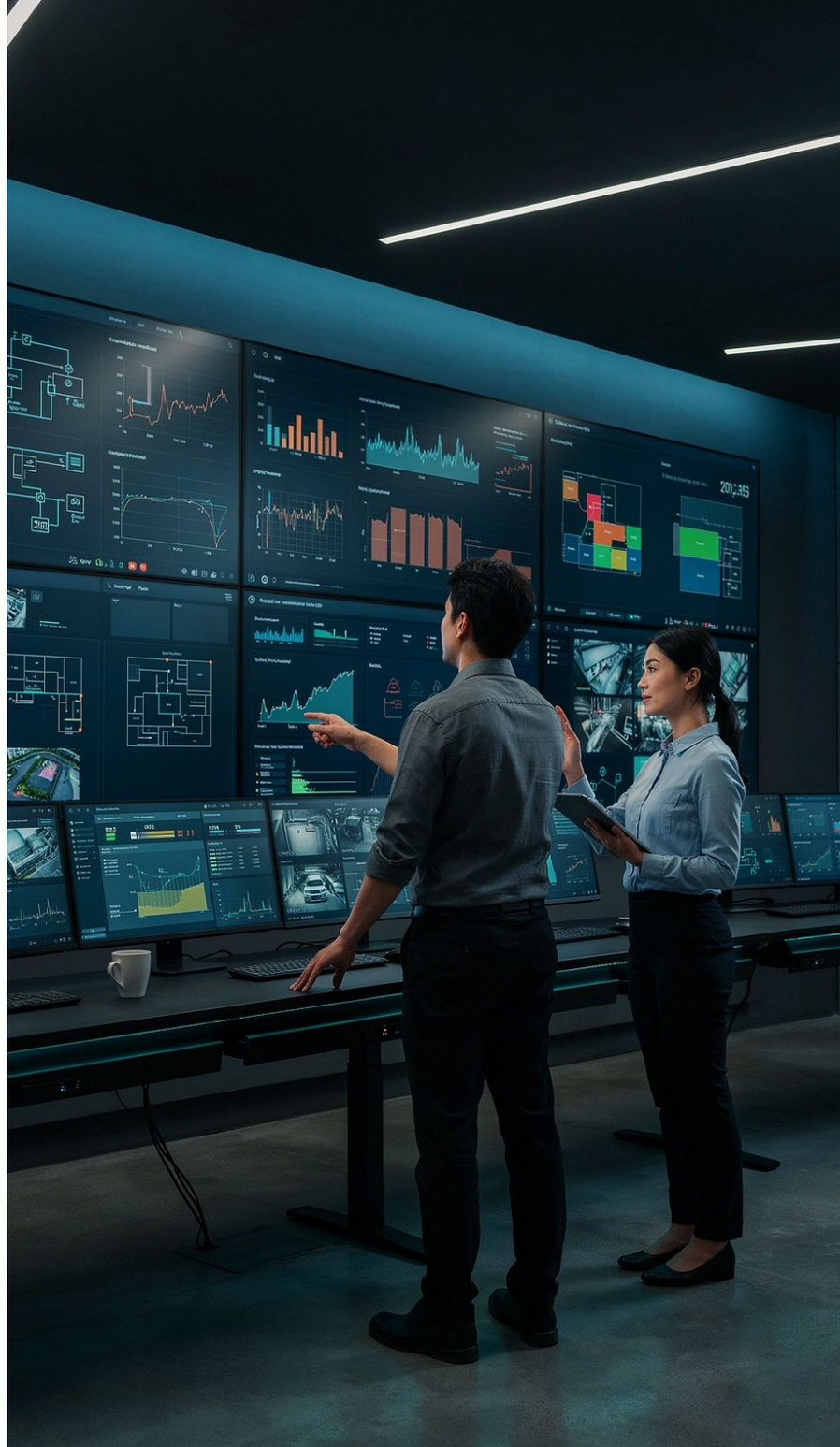
Disciplined multi-discipline COBie coordination reduces RFI cycles, minimizing costly project delays and miscommunication between trades.

Seamless FM Transition

Verified utility data and linked asset records enable facility teams to begin maintenance operations immediately upon handover – with zero ambiguity.

Owner Empowerment

Accurate, structured post-occupancy data empowers owners to make informed capital planning, energy optimization, and lifecycle replacement decisions.



CHAPTER 4

Looking Toward the Future

Digital Twins

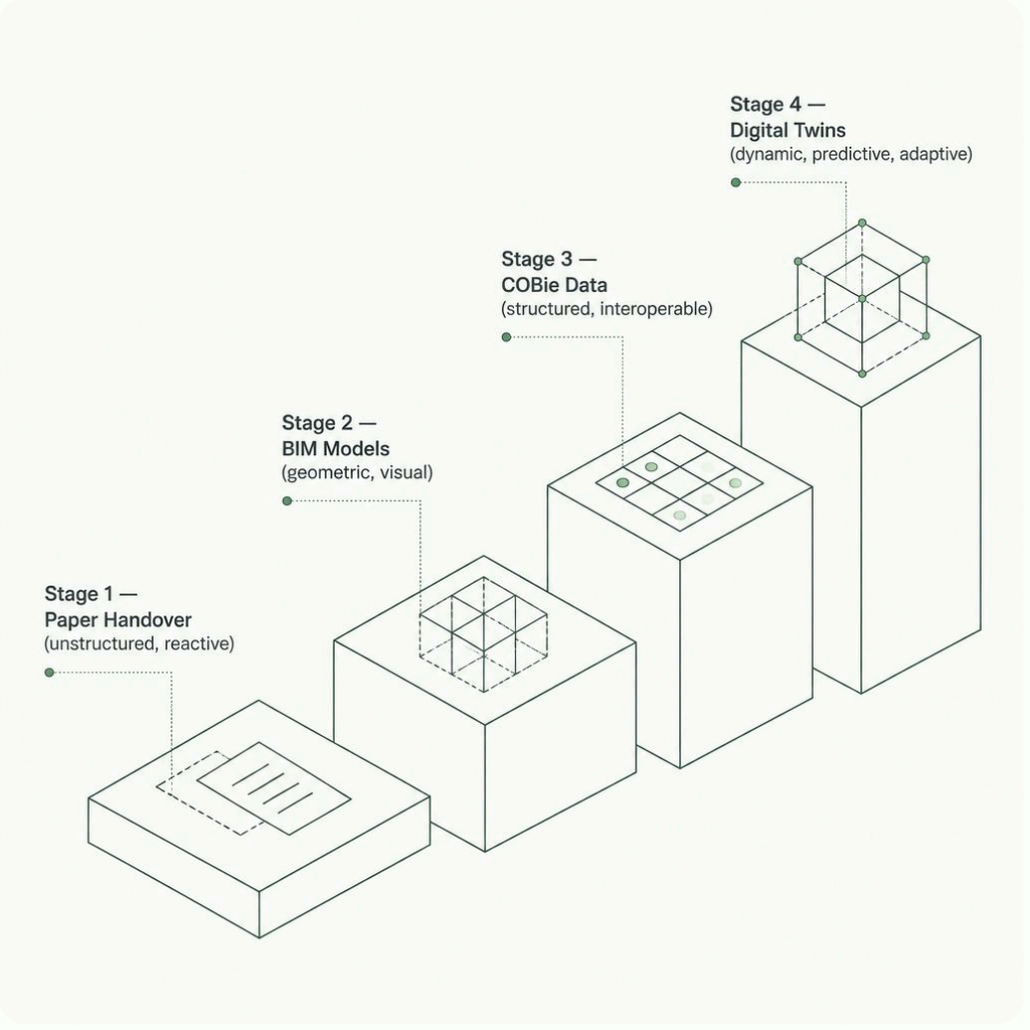
COBie is the data foundation for true Digital Twins – moving facilities from static reports to dynamic, real-time adaptive asset models that respond to operational conditions.

Retroactive Modeling

As-built capture technologies enable existing buildings to be retroactively modeled and enriched with COBie data, unlocking lifecycle value in aging infrastructure portfolios.

FM as a Leading Indicator

The future of facility management is predictive, not reactive. Structured COBie data positions FM teams to anticipate failures, optimize performance, and lead strategic decision-making.



Summary: Enabling Operations

Handover is not the end of a project – it is the activation of a facility.

1

Start Early

Define COBie schemas in the BIM Execution Plan. Data strategy begins at project inception, not closeout.

2

Structure the Data

Standardized, verified asset data creates trust, auditability, and maintainability across the entire facility lifecycle.

3

Build for the Operator

Design and construction deliverables must serve the people who will run the building for decades – not just those who build it.

Ready to Streamline Your Handover?

Partner with Tejjy to integrate COBie into your next MEP BIM project and ensure operational readiness from day one. Our team delivers structured, validated asset data that empowers your facility management team from the moment you take possession.

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